

Amendments to the Claims:

This listing of claims will replace all prior version, and listings, of claims in the application.

Listing of Claims:

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1. (Currently Amended) A driving circuit for a ~~displayan-organic~~ electroluminescence (EL) device comprising:

a DC-DC converter provided inside one chip, for controlling an external voltage input depending on a timing control signal and providing a controlled DC voltage;

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an interface unit provided inside the chip, for interface with parts outside the chip;

a memory provided inside the chip, for storing display information transmitted through the interface unit;

a data processor provided inside the chip, for providing a display data to a display panel of the EL-display device using the display information stored in the memory and the controlled DC voltage output from the DC-Dc converter;

a scan processor provided inside the chip, for outputting scan data to the

display panel using the display information and the controlled DC voltage output from the DC-DC converter; and

a timing control unit provided inside the chip, for providing the timing control signal to the DC-DC converter, the interface unit, the memory, the data processor, and the scan processor.

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2. (Currently Amended) The driving circuit for ~~an organic EL~~ a display device as claimed in claim 1, further comprising a power peripheral unit provided outside the chip, for controlling input and output voltages of the DC-DC converter, preventing a backward current from occurring during the DC-DC conversion, and maintaining the input DC voltage for a predetermined time.

3. (Currently Amended) The driving circuit for ~~an organic EL~~ a display device as claimed in claim 2, wherein the power peripheral unit includes an inductor, a diode, and a resistor, which are hard to be installed inside the chip.

4. (Currently Amended) The driving circuit for ~~an organic EL~~ a display device as claimed in claim 3, wherein the power peripheral unit includes:

an input terminal providing an applying external voltage to the DC-DC

converter;

an output terminal output terminal outputting the controlled DC voltage output from the DC-DC converter to the outside the chip;

a first capacitor connected with the input terminal in parallel to minimize fluctuation of the input voltage;

a second capacitor connected with the output terminal in parallel to minimize fluctuation of the controlled DC voltage;

an inductor connected in series between the input terminal and the output terminal, for maintaining the external voltage applied to the DC-DC converter for a predetermined time; and

a diode connected in series between the input terminal and the output terminal, for preventing a backward current from occurring.

5. (Currently Amended) The driving circuit for an organic EL a display device as claimed in claim 1, wherein the DC-DC converter includes:

a mode control unit outputting a voltage control signal in response to the timing control signal from the timing control unit;

an impedance generating unit outputting an impedance value changed depending on the voltage control signal output from the mode control unit;

a resistor connected with an output terminal of the DC-DC converter in parallel and with an output terminal of the impedance generating unit in series; and

a voltage control unit receiving a feedback value of the controlled DC voltage distributed by the impedance value output from the impedance generating unit and a value of the resistor, and then outputting a DC voltage controlled according to the feedback voltage.

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6. (Currently Amended) The driving circuit for ~~an organic EL~~ a display device as claimed in claim 5, wherein the impedance generating unit and the resistor can be installed not inside the chip but outside the chip.

7. (Original) A method for converting a voltage in a DC-DC converter having an output resistor, the method comprising the steps of:

generating a DC voltage;

generating a voltage control signal in response to a timing control signal;

generating an impedance value corresponding to the voltage control signal;

distributing the DC voltage by the resistor and the impedance value; and

generating a new DC voltage using the distributed voltage.

8. (New) An apparatus comprising an integrated circuit, wherein the integrated circuit comprises:

a voltage converter; and
circuitry configured to drive a display device.

9. (New) The apparatus of claim 8, wherein the voltage converter is a direct current to direct current voltage converter.

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10. (New) The apparatus of claim 8, wherein the circuitry comprises a data processor and a scan processor.

11. (New) The apparatus of claim 8, wherein the integrated circuit is comprised on a chip.

12. (New) The apparatus of claim 8, wherein the voltage converter comprises a voltage control unit.

13. (New) The apparatus of claim 12, wherein the voltage control unit is configured to vary impedance to control the level of an output voltage.

14. (New) The apparatus of claim 13, wherein apparatus comprises an impedance generating unit.

15. (New) The apparatus of claim 14, wherein the impedance generating unit is configured to transmit a control signal to the voltage control unit to vary the impedance of the voltage control unit.

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16. (New) The apparatus of claim 14, wherein the impedance generating unit is comprised in the integrated circuit.

17. (New) The apparatus of claim 14, wherein the impedance generating unit is external to the integrated circuit.

18. (New) The apparatus of claim 12, wherein the voltage control unit comprises:

an input terminal;

an output terminal; and

a feedback terminal.

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Response to Office Action of March 12, 2003

19. (New) The apparatus of claim 18, wherein an inductor is coupled between the input terminal and the output terminal.

20. (New) The apparatus of claim 18, wherein a diode and a resistor are coupled in series between the output terminal and the feedback terminal.
